

R2 Plus Total Station

Now with Endless
Friction Drives and
Trigger Key



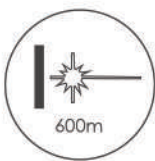
R2 Plus **High Precision** **TOTAL STATION**

High accuracy and long reflectorless range are the perfect combination that makes Stonex R2 Plus the best friend of every professional surveyor.

Cadastral, mapping, staking out, and up to high precision monitoring works: within the range of R2 Plus Series, you will find the solution that fits your needs.

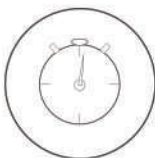
R2 Plus comes standard with integrated onboard field software, a complete suite of applications, and an external controllers can be linked to Stonex R2 Plus, through the Bluetooth™ wireless connection: no limitation will stop your working process. Road software module is included as standard in each Stonex R2 Plus.

Stonex R2 Plus model 2017 features endless friction drives for continuous horizontal and vertical rotations: no more knobs and clamps with limited movements but a more comfortable use of the station. The trigger key on the side of the instrument guarantees the same accuracy provided by a traditional clamp lock system.



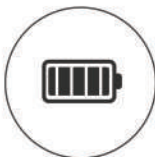
LIMITLESS DISTANCE MEASUREMENTS

By using digital phase laser ranging technology, R2 Plus guarantees high accuracy long range measurements: 600 m in reflectorless mode and up to 3.000 m using a single prism, with millimeter accuracy.



FAST, ACCURATE, RELIABLE

Measuring distances in one second, with 2 mm accuracy, makes any job extremely cost effective and reliable. The wide range of application software allows to complete the Surveyor's tasks directly in the field.



ONE DAY OF CONTINUOUS FIELD WORK

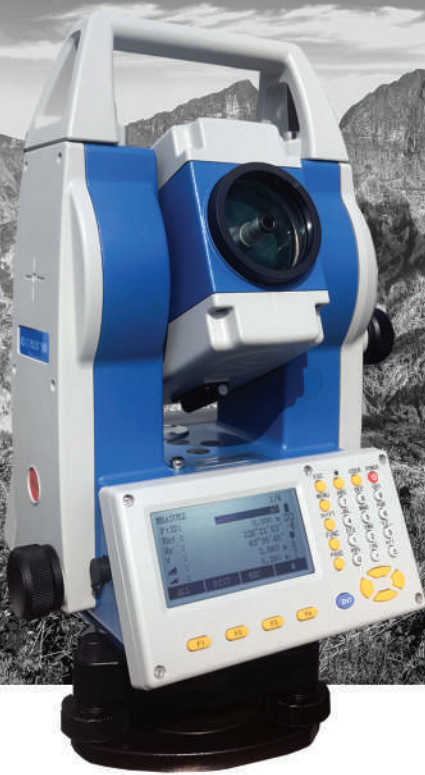
Thanks to the low power consumption circuit design and to the two high capacity batteries R2 Plus gives the opportunity to continuously work for around 20 hours. No concern for data storage: the improved 4 Gb internal memory and the SD card up to 16 Gb store an huge amount of data.



TEMPERATURE PRESSURE SENSORS

Temperature and pressure changes have a negative impact on the accuracy of distance measurements: the smart R2 Plus monitors the changes and automatically adjusts the distance calculations.





R2 PLUS

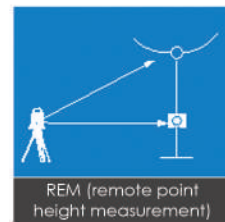
The total station with endless drives

Whether the work is a basic survey or a long road staking out under full sun, R2 Plus will always help you with a friendly user interface and its intuitive field software. The navigation menu drives the Surveyor into simple operations, and the results are displayed in a clear way.



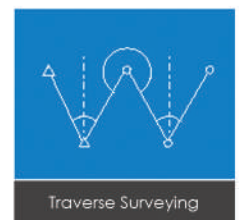
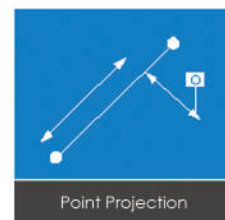
ENDLESS FRICTION DRIVES & TRIGGER KEY

These features make R2 Plus one of the most manageable Total Stations of the market: target collimations are fast and accurate using both the hands and the measure starts using the trigger key located on the same side of the instrument.



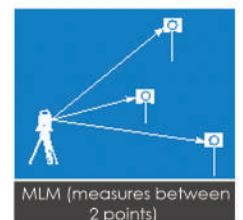
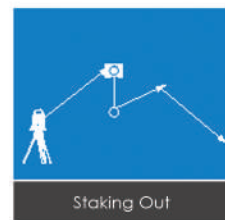
AUTOMATIC 2 AXIS COMPENSATION

The electronic dual axis compensator featuring a wide range automatically levels R2Plus when it is not perfectly horizontal; the status of the compensator is shown on the graphic display allowing an accurate levelling of the instrument.



WIDE RANGE OF COMMUNICATION OPTIONS

Standard RS 232 interface, USB, SD card up to 16 Gb, Bluetooth guarantee a seamless in/out data flow to any external device. The wireless Bluetooth connection allows to connect R2 Plus with handheld computers giving the possibility to use a custom field software on line with the instrument.



TECHNICAL FEATURES

ANGLE MEASUREMENT

Reading system	Absolute encoder
Display resolution	1" /5" /10" ; 0.0002g/0.001g/0.002g; 0.005mil/0.02mil/0.05mil
Angle Units	DEG 360°/GON 400/MIL 6400
Accuracy	2"

TELESCOPE

Magnification/ Field of view	30X/1°30'
Tube length	156 mm
Minimum focus distance	1.0 m (3.26 ft)
Reticle	10 brightness levels adjustable
Objective aperture	φ 45 mm
Laser pointer	Red light, coaxial

TILT SENSOR

Type	Electronic, dual-axis
Compensation range/accuracy	± 3.0°/1"

DISTANCE MEASUREMENT RANGE (GOOD CONDITION)¹

Standard mode/Prism	2.0 ~3000 ² Class1
Reflective sheet (60mm x 60mm)	2.0 ~800 m
Reflectorless	2.0 ~600 ⁵ m

DISTANCE MEASUREMENT ACCURACY

Standard mode/Prism	± (2+2x10 ⁻⁶ D) mm
Reflective sheet (60mm x 60mm)	± (3+2x10 ⁻⁶ D) mm
Reflectorless	1-200m: ± (3+2x10 ⁻⁶ D)mm >200m: ± (5+3x10 ⁻⁶ D)mm

MEASUREMENT TIME

Standard mode/Prism ⁶ (Tracking/Fast/Fine)	0.4 sec / 0.6 sec / 1.0 sec
Reflectorless	1.5 sec / 5 sec

DISTANCE MEASUREMENT

Distance Unit	m/ft/US ft
Display Resolution (m/inch selectable)	0.0001m/0.001ft/0.001 US ft

Illustrations, descriptions and technical specifications are not binding and may change

1. Good condition: no haze, visibility about 40km, no heat shimmer, breeze.
2. Visibility about 40 km, sunny, no heat shimmer.
3. Visibility about 20 km, back light less than 5000 lx, no haze, no direct sunlight.
No prism target: KODAK CAT NO.E1527795 (reflectivity: 90%, size: A4).
4. Best testing condition: indoors, target is far away about 10 m, prism or KODAK board.

LASER PLUMMET

Laser type	± 1mm/1.5 m
Laser brightness	Adjustable

LEVEL VIAL SENSITIVITY

Plate level	30 (°2mm)
Circular level	8 (°2mm)

ENVIRONMENTAL CONDITIONS

Operating Temperature	-20° C ; +50° C
Storage Temperature	-40° C ; +70° C
Waterproof/Dustproof	IP55

PHYSICAL SPECIFICATION

Weight including battery and tribrach	6.0 Kg
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POWER

Battery Voltage/Capacity	7.4V / 3400mAh Li-ion
Operating time (angle measurement)	36 hours
Operating time (distance meas. every 30 seconds)	Approx 19 hours
Battery charger	110/220V, charging time: approx.4h

OTHER SPECIFICATIONS

Display/Keyboard	Two sides, large LCD, 240x128 dots/Alphanumeric
Memory	4Gb internal + SD card (max 16Gb)
Interface	RS-232C / USB/ SD card/Bluetooth
Sensors	Built in temperature/pressure sensors

ON BOARD FIELD APPLICATION PROGRAMS

Data recording and management, Setting out, Resection, Intersection, Point to line, Area calculation, Offset, Road



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